

REMARKS

Regarding the Examiner's request that Figures 1-3 be labelled with a legend PRIOR ART, the undersigned hereby points out that Figures 1-3 are already labelled with the legend PRIOR ART, so this requirement is not understood, and clarification is requested.

With regard to the Section 112 rejection of claims 2 and 6, claim 2 has been amended to make it clear that the state information being referred to is the state information mentioned in the first claim. A similar amendment has been made to claim 6 to add a comma to make the meaning of the sentence clear.

The Examiner has rejected claims 1-6, 11-14 and 17-31 as anticipated by Mikurak (US 6,606,744).

Mikurak relates to providing collaborative installation management in a network-based supply chain environment. Mikurak has nothing to do with security gateway cluster comprising at least two nodes.

Mikurak fails to teach any kind of security gateway cluster comprising at least two nodes. The Examiner argues that the ATM switch or the virtual circuit mentioned in Col. 28, lines 59-67 and col. 29, lines 1-12 and 27-42 correspond to the gateway of the claims.

Gateways are different than switches. The McGraw Hill Telecommunications, *Desktop Encyclopedia of Telecommunications*, at p. 169 defines Gateways as follows:

Gateways are used to interconnect dissimilar networks or applications.

Gateways operate at the highest layer of the Open Systems Interconnection (OSI) reference model: the Application layer. A gateway consists of protocol conversion software that usually resides in a server, minicomputer or mainframe or front-end device. Gateways interconnect disparate networks or media by processing the various protocols used by each so that information from the send is intelligible to the receiver, despite differences in their networks or computing platforms.

The Network Press, *Dictionary of Networking* (2nd Ed.) at p. 141 defines a

gateway as:

a shared connection between a local-area network (LAN) and a larger system, such as a mainframe computer or a large packet-switched network, whose communication protocols are different. Usually slower than a bridge or router, a gateway is a combination of hardware and software with its own processor and memory used to perform protocol conversions.

This same dictionary defines packet switching as:

A data transmission method that simultaneously routes and transmits data packets from many different customers over a communications channel or telephone line, thus optimizing use of the line. An addressed packet is routed from node to node until it reaches its destination, although related packets may not all follow the same route to that destination. Because long messages may be divided into several packets, packet sequence numbers are used to reassemble the original message at the destination node.

The Webster's New World, *Dictionary of Computer Terms* (7th Ed) defines packet switching at p.388 as follows:

packet switching network: One of two fundamental architectures for the design of a wide-area network (WAN); the other is a circuit switching network. In a packet-switching network such as the Internet, no effort is made to establish a single electrical circuit between two computing devices; for this reason, packet-switching networks are often called connectionless. Instead, the sending computer divides a message into a number of efficiently sized units called packets, each of which contains the address of the destination computer. These packets are simply dumped onto the network. They are intercepted by devices called routers, which read each packet's destination address and, based on that information, send the packets in the appropriate direction. Eventually, the packets arrive at their intended destination, although some may have actually travelled by different physical paths. The receiving computer assembles the packets, puts them in order, and delivers the received message to the appropriate application. Packet-switching networks are highly reliable and efficient, but they are not suited to the delivery of real-time voice and video.

Note that there is no mention of protocol conversion in packet switching in either of these definitions. This is because packet switches and ATM switches route packets or ATM cells between network legs having the same communication protocol and there is no need for protocol conversion.

The claims at bar all call for a gateway with multiple nodes, i.e., a gateway cluster. Gateways are not switches since they do protocol conversion and switches do not. Therefore, there is no anticipation since the prior art reference does not teach gateway clusters.

More specifically, we strongly disagree with the Examiner that the ATM switch or the virtual circuit mentioned in Mikurak is a security gateway cluster. No person skilled in the art of network security systems could consider an ATM switch as a security gateway. An ATM switch operates only to switch ATM cells from incoming virtual connections to outgoing virtual connections according to the address information in the ATM cells. A virtual connection is a connection, not any kind of security device or security gateway.

The meaning of the term "security gateway" can also be unambiguously derived from the specification of the present application, and the term "definitively" does not relate to an ATM switch or a virtual connection.

Mikurak also fails to teach storing information in at least two nodes in said security gateway cluster, or synchronizing the state information in said security gateway cluster by sending state information from a first node to at least a second node of said at least two nodes. On the contrary, in Kikurack, the ATM switches are only for switching ATM cells between different virtual connections so as to transfer the cells from a source to a destination. In Mikurak, there is no state information stored in and synchronized between different nodes of a cluster.

Mikurak further fails to teach detecting in a security gateway cluster a predetermined irregularly occurring action and initiating the step of synchronization of state information as a response to said predetermined irregularly occurring action.

The Examiner alleges that a redundancy check based on a cyclic redundancy code (CRC) for detecting errors corresponds to such irregularly occurring action. The Examiner further alleges error correction and re-insertion of the control information onto the departing packet corresponds to the synchronizing. This has nothing to do with the present invention. Mikurak only discloses a conventional error detection and correction for transmission errors which may have occurred on the previous connection leg, prior to transmitting the corrected information over the next connection leg.

The claimed invention, for the above stated reasons, is not anticipated by Mikurak.

Voluntary Amendments

Claim 18 was changed from an independent claim to a dependent claim to cover the process of synchronizing node-specific state information only to one or more backup nodes and synchronizing common state information to all nodes when detection of failure of a first node is detected.


Claim 19 was amended to restate the claim in a form which is more in line with U.S. practice by characterizing the claim as a computer-readable medium claim and reciting the method steps of claim 1 and reordering the steps somewhat to make more sense.

Claims 20 - 29 were all changed from software entity claims to node claims having a processor programmed with program code means to perform various functions.

Claims 30 - 32 are all apparatus claims stated in means plus function terms without the program code modifiers and should be interpreted to cover both hardware and software or combinations of the two which perform the stated functions.

Respectfully submitted,

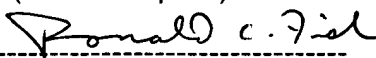
Dated: 1/1/06



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